Paraben's iRecovery Stick

User manual

Contents

About iRecovery Stick 3
Getting Started 4
    System Requirements 4
Application User Interface 5
    Understanding the User Interface 5
    Main Page 5
    Data Page 5
    Main Menu 7
Recovering Data 8
    Recovering Data from the iPhone Device 8
    Recovering Data from iTunes Backup Files 9
Working with Workspaces 11
    About Workspaces 11
    Creating a New Workspace 11
    Opening an Existing Workspace 11
    Closing a Workspace 11
Viewing iPhone Data 12
    Recovered Data 12
    Other Data 13
Searching Data 17
Exporting Data 18
    Exporting Data to MS Excel 18
Bookmarks 19
    Accessing Bookmarks 19
    Adding a Bookmark 19
    Editing a Bookmark 19
    Deleting a Bookmark 19
Troubleshooting 20
Creating Log Files 21
iRecovery Stick Options 22
Additional Information and Training 22

About iRecovery Stick

Welcome to Paraben's iRecovery Stick!

This program allows investigators to recover data from iPhones including text messages and more.

The data can be recovered either from the iPhone device directly or from the IPhone back-up files.
All iPhone OS are supported including iPhones 1.x-4.x.

Getting Started

System Requirements

The following requirements must be met to use iRecovery Stick:

- iRecovery Stick requires a Windows XP or newer operating system.
- To use the Export to Excel feature, Microsoft Excel must be installed on your computer and you must add the .Net Framework programming tools during the installation process.

Application User Interface

Understanding the User Interface

The iRecovery Stick interface includes the following parts:

- **The Main page**: This page contains information about iRecovery Stick and three buttons that let you open the existing workspace, start recovery process from the iPhone device or iTunes backup files.
- **The Data page**: On this page, the recovered data and other backup data received from the device is displayed.
- **The Main menu**: The menu provides access to the main functionality of Paraben's iRecovery Stick.

Main Page

The Main page of iRecovery Stick opens at the program start-up.

It contains the following elements:

- A tool bar.
- Short description of iRecovery Stick.
- Three icons: Start Recovery, Open Workspace, and Start Import from iTunes Backup.
- A link to the Data page if there is any data in the workspace.

From the Main page, you can do the following:

- Start recovery process from the iPhone device or iTunes backup files.
- Define program options.
- Open an existing workspace.
- Move to the Data page.
- Rename the currently opened workspace.
- Export workspace data to Excel.

Data Page

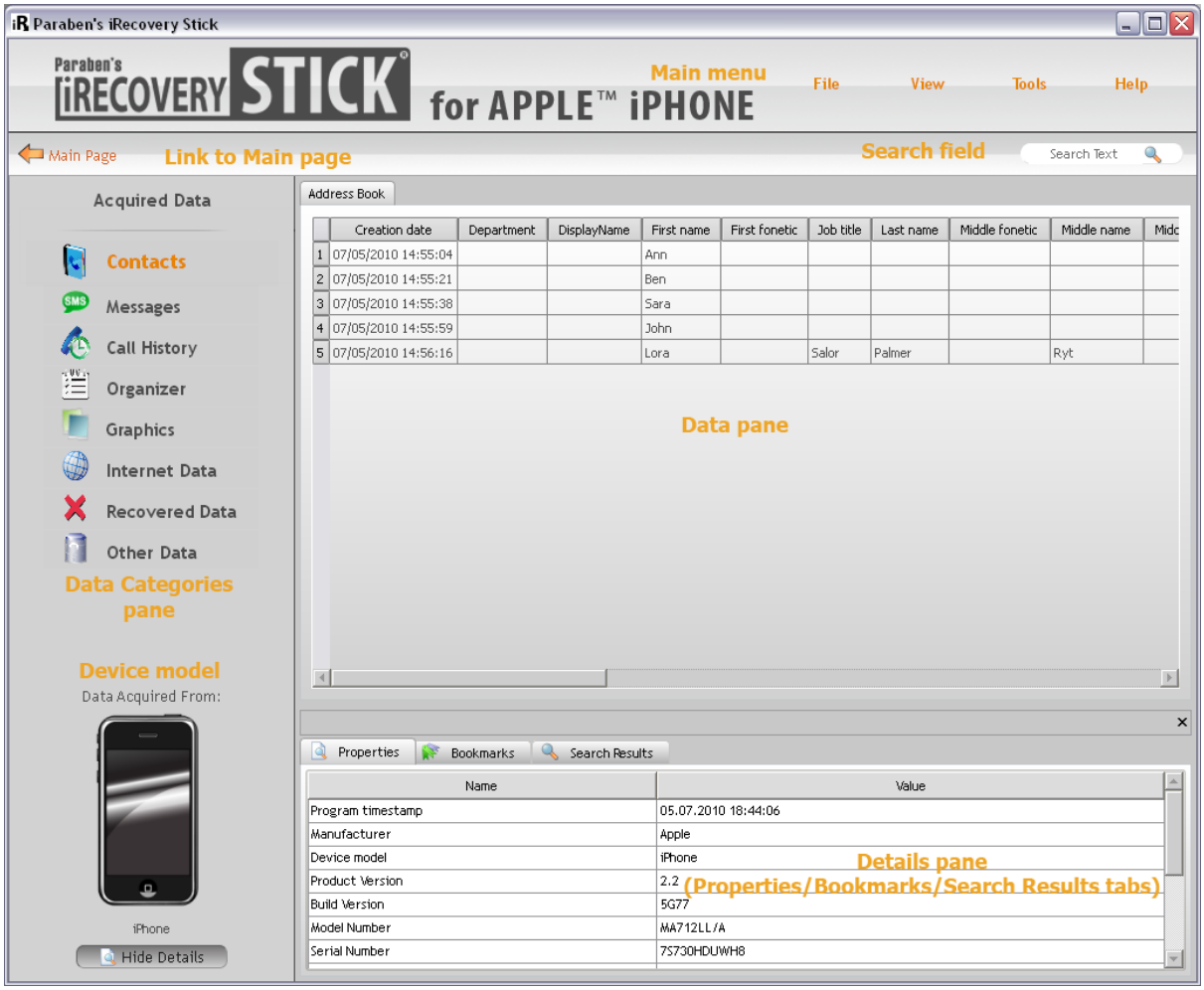
The Data page opens when data recovery process finishes, you open a workspace or you click the Back to Data link on the Main page.

The Data page contains the following elements:

- A list of data categories.
- The Data pane in which data is displayed.
- The name of the device from which data was recovered.
- A Search field.
- The Details pane, including the Properties tab, the Bookmarks tab, and the Search Results tab.
- A link to the Main page.

From the Data page, you can do the following:

- View the recovered data.
- View the properties of the device from which you recovered data.
- Search text data in the workspace.
- Create and access bookmarks.
- Define program options.
- Open an existing workspace.
- Go to the Main page.
- Save the open workspace using a different name.
- Export workspace data to Excel.



Main Menu

File Menu

The File Menu contains basic file options for working with iRecovery Stick.

Menu Item	Description
Open Workspace	Opens a saved workspace.
Save As	Saves the open workspace under a different name.
Start Recovery	Closes the open workspace and displays a screen from which you can select a device to scan.
Start Import	Starts the import of iPhone backup files.
Export to Excel	Exports the content of the workspace as an MS Excel (.xls) file.
Exit	Shuts the iRecovery Stick down.

View Menu

The View menu lets you display tools in the iRecovery Stick user interface.

Menu Item	Description
Bookmarks	Opens the Bookmarks pane.

Tools Menu

The Tools menu lets you check for iRecovery Stick updates and define logging and folder options.

Menu Item	Description
Options	Lets you define logging options and the default folder for saved workspaces.
Check for Updates	Connects to the Paraben's site to download updates.

Help Menu

The Help menu gives access to this help file, information about the iRecovery Stick application, and displays registration data.

Menu Item	Description
Help	Opens iRecovery Stick user documentation.
About Qt	Provides data about the Qt tool, licensed for use in iRecovery Stick.
About	Displays the iRecovery Stick description and the version number.

Recovering Data

iRecovery Stick allows you to recover data either from iPhone device or from iPhone back-up.

CAUTION: iRecovery Stick places recovered data in a temporary workspace that is automatically created in the workspace folder. The folder location is defined in the Options menu and has a *Workspace<number>.ds* name. When you close the workspace, you must save it or you will lose the data.

Recovering Data from the iPhone Device

The iRecovery Stick acquires data and recovers the deleted data from iPhone devices. This section explains how to recover data from your iPhone.

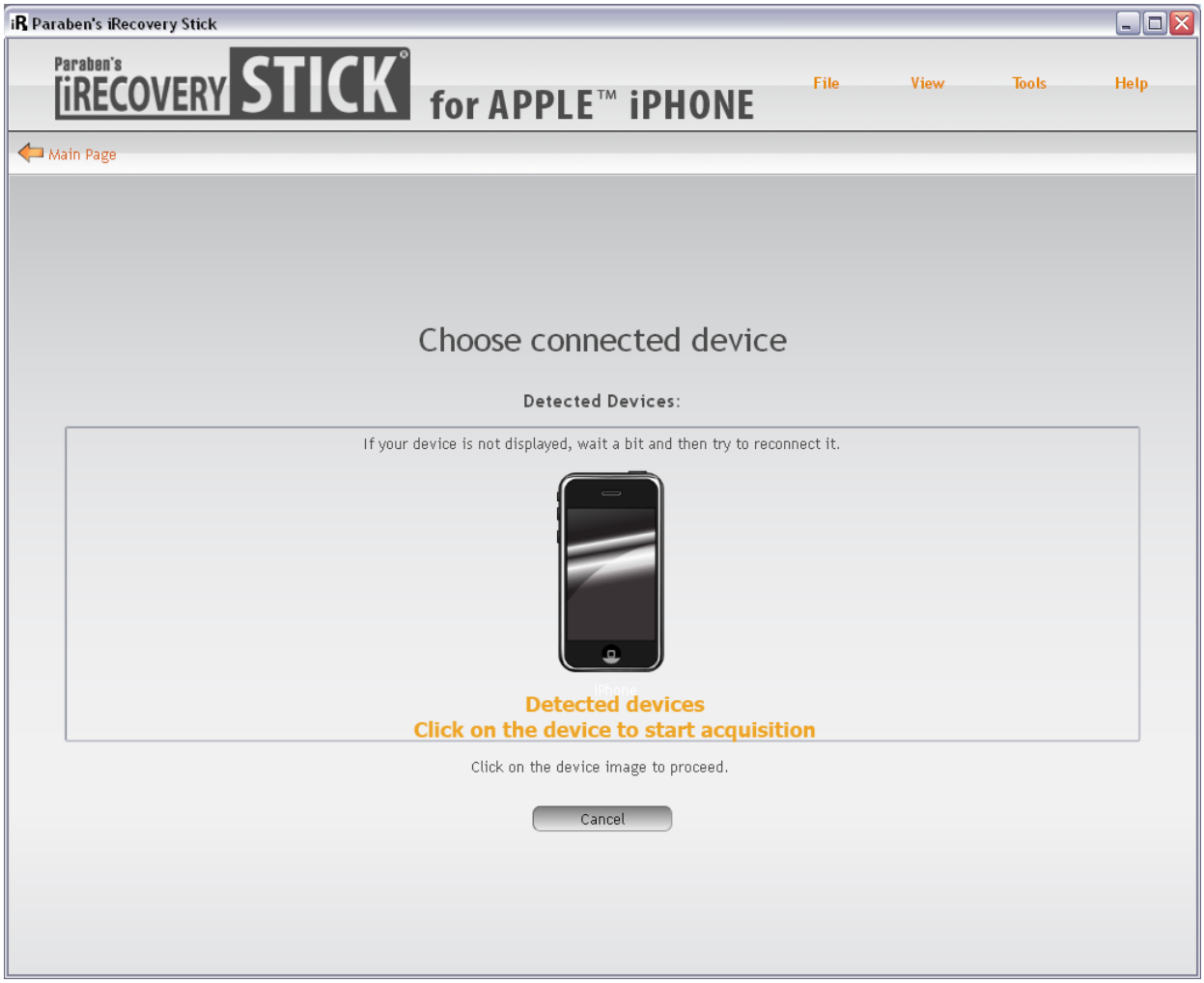
Before the recovery process starts, do the following:

1. Turn on the device.
2. Ensure that the device battery is completely charged.
3. Ensure that iTunes drivers are installed on your computer. Its installation is performed automatically at the first iRecovery Stick connection.
4. Connect the iPhone to the computer with a data cable.

To recover data from the iPhone:

1. Do one of the following:
   - Click **Start Recovery** on the Main page.
   - Click **File** > **Start Recovery.**
   - Press **F5**.
2. Click on the image of the device you want to scan. If multiple devices are connected to your computer, multiple images are displayed.
3. The recovery process starts.

NOTE: If your device doesn't appear in the list in several seconds after the connection, try to disconnect it and then connect back again.



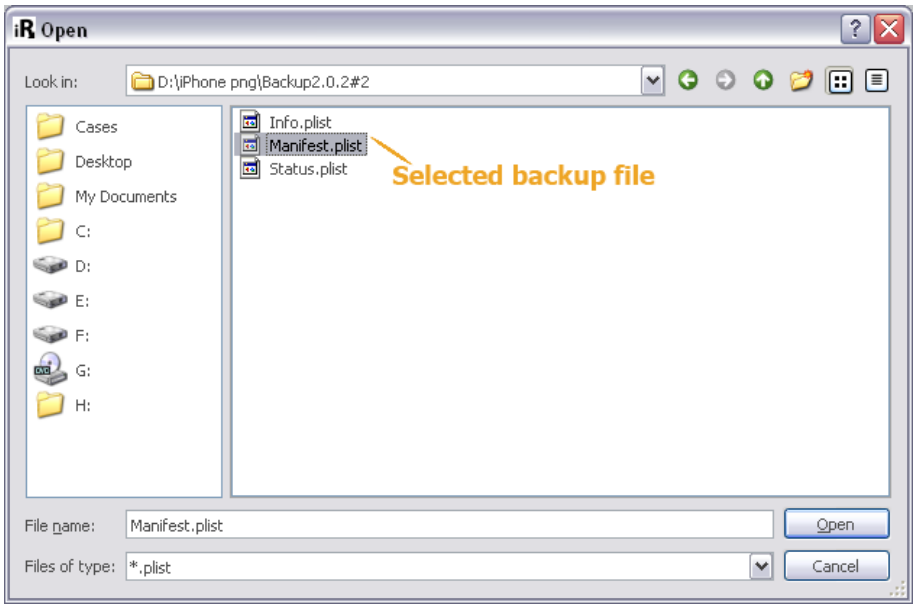
Recovering Data from iTunes Backup Files

The iRecovery Stick imports data from the iPhone backup files created by iTunes and recovers deleted data stored in them.

To import the backup file:

1. Do one of the following:
   - Click **File** > **Start Import**.
   - On the **Main** page, click the **Start Import from iTunes Backup** icon.
2. Choose the plug-in for importing.
3. Navigate to the **Manifest.plist** file, then click **Open**.

Paraben's iRecovery Stick
Paraben's iRECOVERY STICK for APPLE™ iPHONE
File
View
Tools
Help
Choose plugin to import
Supported plugins
iPhone 1.x-2.x
iPhone 3.x
iPhone 4.x
Cancel
Select the correct version of the iPhone.
Click on the required icon.


Open
Look in:
D:\iPhone png\Backup2.0.2#2
Cases
Desktop
My Documents
C:
D:
E:
F:
G:
H:
Info.plist
Manifest.plist
Status.plist
Selected backup file
File name:
Manifest.plist
Open
Files of type:
*.plist
Cancel

Working with Workspaces

About Workspaces

A workspace is a file with a **.ds** extension that contains information recovered from a single iPhone device.

Creating a New Workspace

When you start data recovery, iRecovery Stick creates a new temporary workspace. The workspace is named *Workspace<number>.ds*. By default, the workspace is saved in the current Windows user folder. The workspace is also updated after you create a bookmark. You can change the default location where a workspace is saved, and you can use the **Save As** function to relocate and rename a saved workspace.

To create a workspace:

1. Start the data recovery process. See Recovering Data from iPhone.
2. Click **File** > **Save As**, then click **Save**.

To define the default workspace folder:

1. Click **Tools** > **Options**, then type the new name and browse to the folder you want to use.
2. Click **Save**.

To change the name of a workspace:

1. Open the workspace that you want to change.
2. Click **File** > **Save As**.
3. Browse to the location where you want to save the workspace, then type the new name.

Opening an Existing Workspace

Workspaces created by iRecovery Stick (*.ds files) can be opened from the user interface.

1. **To open an existing workspace**, do one of the following:
   - On the **Main** page, click on the **Open Workspace** button.
   - In the **File** menu, select the **Open Workspace** item.
   - Press **Ctrl+O**.

When you open a new workspace, the currently open workspace closes. Unsaved information is lost.

Closing a Workspace

The workspace closes when any other workspace opens or iRecovery Stick shuts down.

paraben corporation

Viewing iPhone Data

The iRecovery Stick receives two types of data from the iPhone device or iPhone backup:

- Recovered deleted data.
- Other backup data.

Recovered Data

iRecovery Stick recovers the following types of data:

- Address Book records
- Address Book images
- Calendar records
- Call History records
- Notes
- SMS

To view the recovered data, select the **Recovered Data** category.
The recovered data is displayed in records and is not parsed.

The list of records is displayed in the **Data pane.**

You can click on a recovered record to view its contents. The record opens in not parsed format in the File viewer to the right of the Data pane.

To change the code page for the opened record, select the required encoding in the drop-down list.

To close the File viewer for the record, click **Close**.

Other Data

Other data received from the iPhone backup includes the following parts:

- **Device properties:** The properties of the iPhone from which data was recovered are displayed in the **Properties** tab of the Details pane. Click **View Details** to open the details pane.

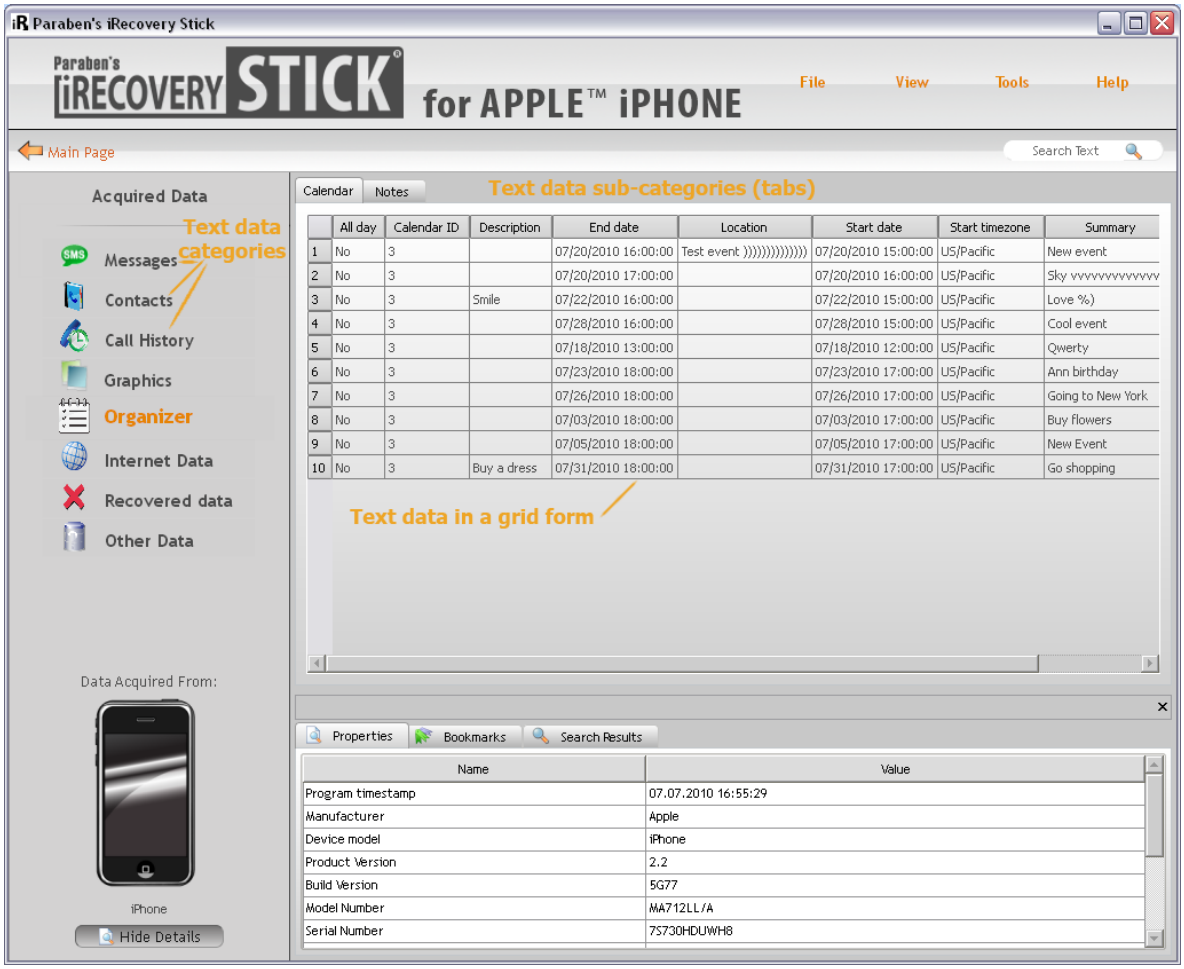
- **Data categories:** In the left of the Data page, the categories of the back-up data are displayed. Click the category name to view its contents.

- **Back-up data:** Acquired backup data is displayed in the right part of the Data page. Data representation depends on its format.

Text data includes the following categories:

- **Contacts**: The device phonebook.
- **Messages**: The device SMS messages.
- **Call History**: The device call logs.
- **Organizer**: The device calendar, memos, and so on.
- **Internet Data**: Includes Safari suspend state, Safari Bookmarks, Safari History, Cookies, Delivery Accounts, Mail Accounts, and Youtube bookmarks.
- **Other Data**: This data includes Properties, Maps Directions, Maps Bookmarks, Maps History, and Dynamic Text.

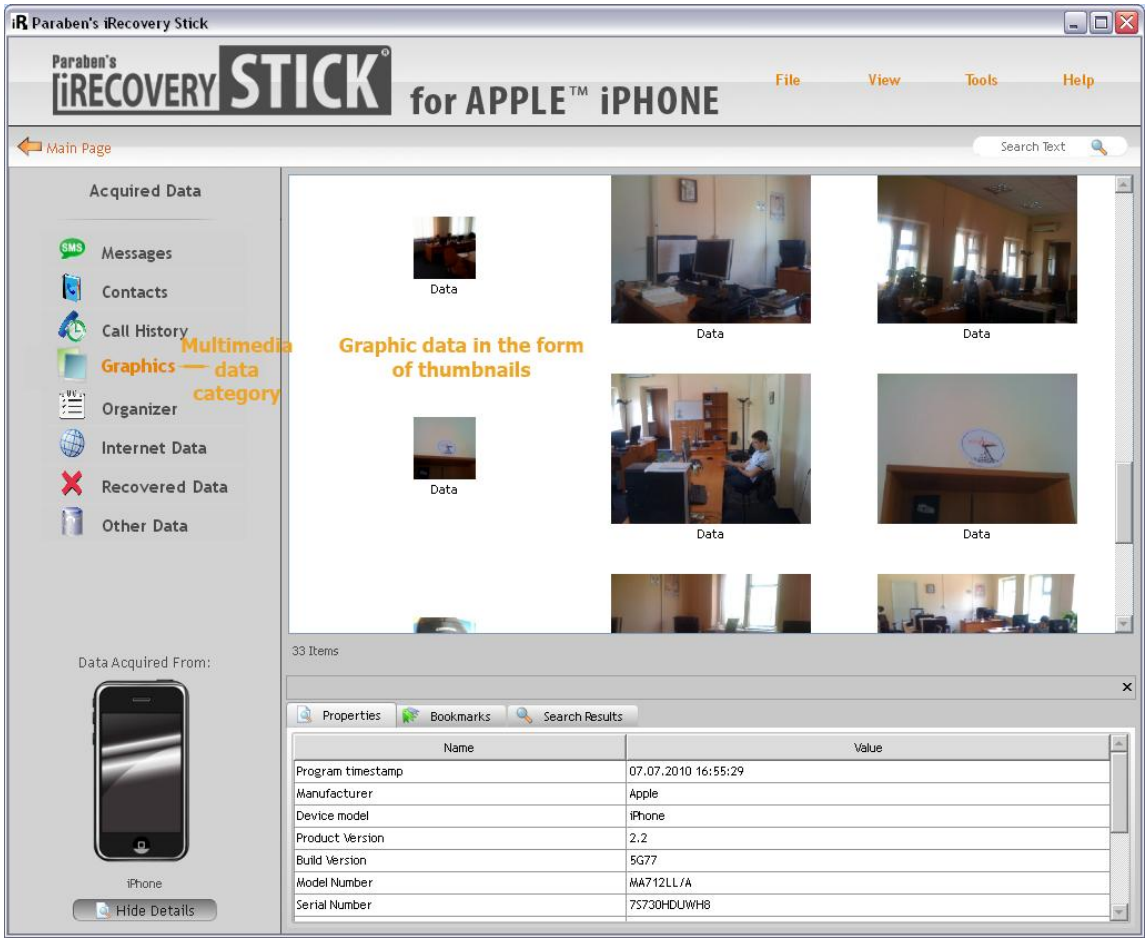
Data from each category is displayed in a grid to the right of the Data page. There can be several tabs in the grid if data contains sub-categories, such as a Calendar and Notes for the Organizer.

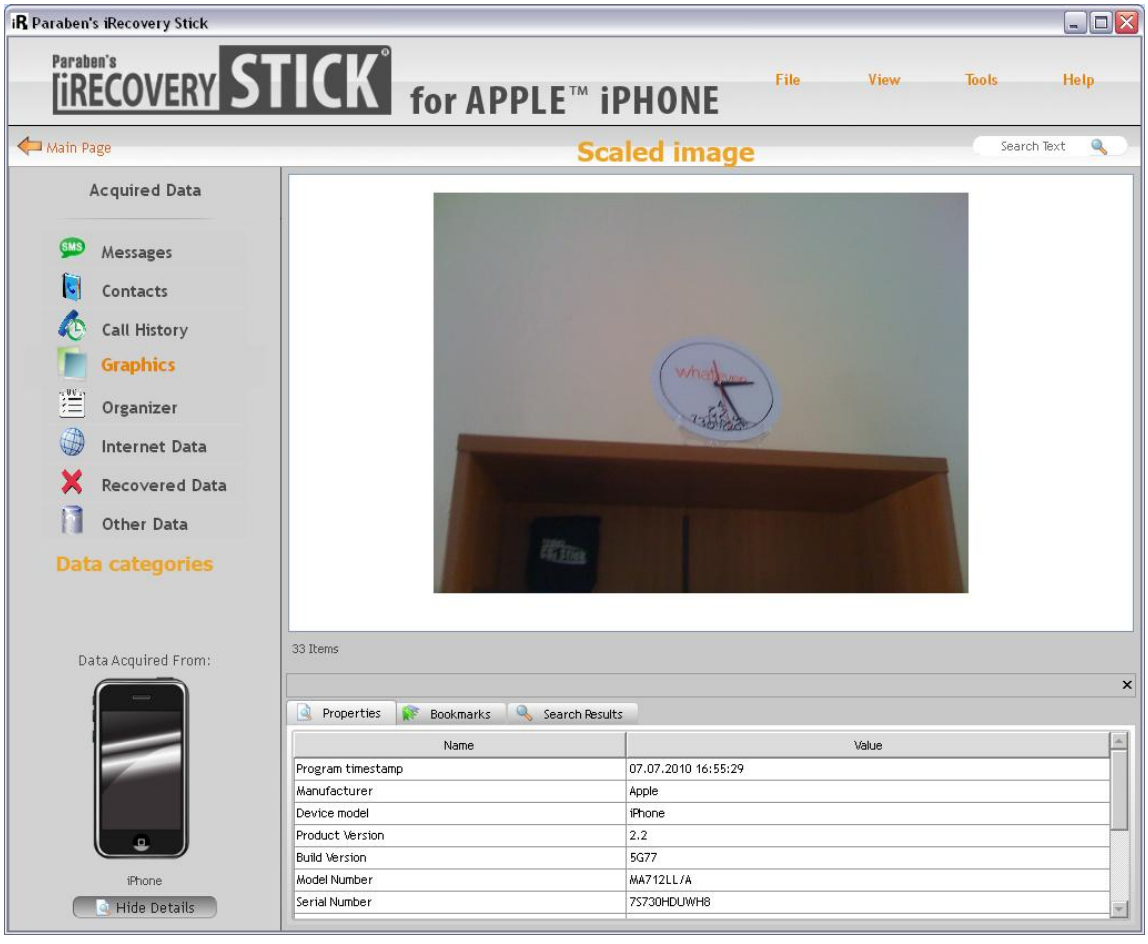


Multimedia data includes **Graphics** category.

This data is displayed as thumbnails. You can click a file to view it. The image opens in the same pane. If necessary (for big images), it scales to fit the window size. To return to thumbnails, click the scaled image.

You can also use external viewers to view multimedia data. **To open the image in the external viewer**, right-click on it and select **Open with**.


Paraben's iRecovery Stick
Paraben's iRECOVERY STICK for APPLE™ iPHONE
File View Tools Help
Main Page
Search Text
Acquired Data
Messages
Contacts
Call History
Graphics
Organizer
Internet Data
Recovered Data
Other Data
Multimedia data category
Graphic data in the form of thumbnails
Data
33 Items
Properties Bookmarks Search Results
Name Value
Program timestamp 07.07.2010 16:55:29
Manufacturer Apple
Device model iPhone
Product Version 2.2
Build Version 5G77
Model Number MA712LL/A
Serial Number 7S730HDUWH8
Data Acquired From:
iPhone
Hide Details


Paraben's iRecovery Stick
Paraben's iRECOVERY STICK for APPLE™ iPHONE
File View Tools Help
Main Page
Scaled image
Search Text
Acquired Data
Messages
Contacts
Call History
Graphics
Organizer
Internet Data
Recovered Data
Other Data
Data categories
33 Items
Properties Bookmarks Search Results
Name Value
Program timestamp 07.07.2010 16:55:29
Manufacturer Apple
Device model iPhone
Product Version 2.2
Build Version 5G77
Model Number MA712LL/A
Serial Number 7S730HDUWH8
Data Acquired From:
iPhone
Hide Details

Searching Data

The iRecovery Stick allows you to search for text data in a workspace.

To search text data:

1. On the **Data** page, in the **Search Text** field (in the upper right corner of the page), type the search string text.
2. Click **Search** or press **Enter.**
3. The search progress is displayed in the **Search Results** tab of the **Details** pane. Click **Abort** to stop the search.
4. When the search finishes, the search results are displayed in the **Search Results** tab of the **Details** pane. Each result is displayed as <Category name>\<Sub-category (tab) name>.
5. Double click the search result to navigate to it.

Paraben's iRecovery Stick
Paraben's iRECOVERY STICK for APPLE™ iPHONE
File
View
Tools
Help
Main Page
Search text field
dress
Acquired Data
Messages
Contacts
Call History
Graphics
Organizer
Internet Data
Recovered Data
Other Data
Calendar
Notes
All day | Calendar ID | Description | End date | Location | Start date | Start timezone | Summary
1 | No | 3 | | 07/20/2010 16:00:00 | Test event))))))))))))) | 07/20/2010 15:00:00 | US/Pacific | New event
2 | No | 3 | | 07/20/2010 17:00:00 | | 07/20/2010 16:00:00 | US/Pacific | Sky vvvvvvvvvvvv
3 | No | 3 | Smile | 07/22/2010 16:00:00 | | 07/22/2010 15:00:00 | US/Pacific | Love %)
4 | No | 3 | | 07/28/2010 16:00:00 | | 07/28/2010 15:00:00 | US/Pacific | Cool event
5 | No | 3 | | 07/18/2010 13:00:00 | | 07/18/2010 12:00:00 | US/Pacific | Qwerty
6 | No | 3 | | 07/23/2010 18:00:00 | | 07/23/2010 17:00:00 | US/Pacific | Ann birthday
7 | No | 3 | | 07/26/2010 18:00:00 | | 07/26/2010 17:00:00 | US/Pacific | Going to New York
8 | No | 3 | | 07/03/2010 18:00:00 | | 07/03/2010 17:00:00 | US/Pacific | Buy flowers
9 | No | 3 | | 07/05/2010 18:00:00 | | 07/05/2010 17:00:00 | US/Pacific | New Event
10 | No | 3 | Buy a dress | 07/31/2010 18:00:00 | | 07/31/2010 17:00:00 | US/Pacific | Go shopping
Found result
Data Acquired From:
iPhone
Hide Details
Properties
Bookmarks
Search Results
Search completed: 4 items found.
Search Results tab
Results | Search expression
1 | Organizer\Calendar | dress
2 | Other Data\Properties | dress
3 | Other Data\Properties | dress
4 | Other Data\Dynamic Text | dress

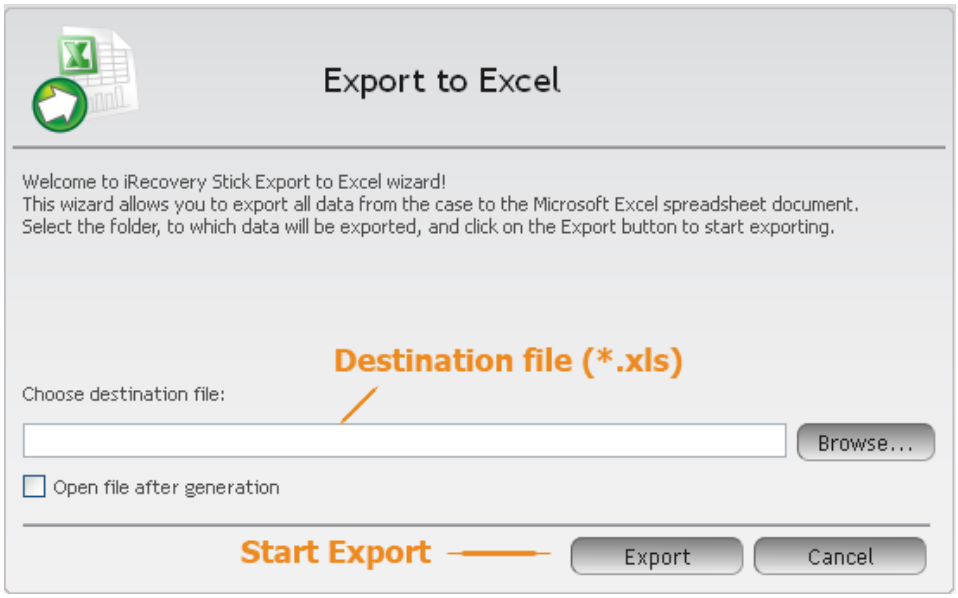
Exporting Data

Exporting Data to MS Excel

You can export data from the workspace as an Excel workbook (.xls file).

To export data:

1. Click **File** > **Export to Excel**.
2. Click **Browse** to navigate to the destination folder and name the exported file.
3. Check **Open file after generation** to open the exported file.
4. Click **Export**.


Export to Excel
Welcome to iRecovery Stick Export to Excel wizard!
This wizard allows you to export all data from the case to the Microsoft Excel spreadsheet document.
Select the folder, to which data will be exported, and click on the Export button to start exporting.
Destination file (*.xls)
Choose destination file:
Browse...
Open file after generation
Start Export
Export
Cancel

Bookmarks

A Bookmark is a pointer to data stored in the workspace.
Bookmarks include the following information:

- Item (the name of the first cell of the row to which the bookmark is pointing)
- Name (the name of the bookmark)
- Details (the description of the bookmark)

Accessing Bookmarks

Bookmarks are displayed in the **Bookmarks** tab of the **Details** pane.
To view bookmarks:

1. Do one of the following:
   - Click **View** > **Bookmarks**.
   - On the Data page, click **View Details** (in the bottom left corner).
2. To view the data, to which bookmark is pointing, double click the bookmark.

Adding a Bookmark

To add a bookmark:

1. Select data to be bookmarked (it can be either a cell of the grid or a row).
2. Right click the item and select **Add to Bookmarks.**
3. Type a name and a description for the bookmark, and then click **Save**.

Editing a Bookmark

To edit a bookmark:

1. Open the **Bookmarks** tab of the **Details** pane.
2. Right click the bookmark and click **Edit,** or, from the menu, click **Manage** > **Edit.**
3. Edit the bookmark name and description, and then click **Save**.

Deleting a Bookmark

To delete a bookmark:

1. Open the **Bookmarks** tab of the **Details** pane.
2. Highlight the bookmark to delete.
3. Right click the bookmark and select **Delete,** or, from the menu, click **Manage** > **Delete**.
4. Select **Delete All** to delete all bookmarks.

Troubleshooting

The following section provides answers for some common issues that you may encounter when using iRecovery Stick.

Problem: The recovery process was broken. The device is in Recovery mode. What do I do?
Solution: Start the Recovery from the device once more. If you don't want to recover data, just wait until the device restarts and disconnect it from the computer.

Problem: The iPhone hung. What do I do?
Solution: Reset the iPhone by holding the sleep/wake button at the top right of the device and the home button at the bottom center of the face at the same time.

Problem: The iPhone doesn't connect to the computer. What to do?

Solution: Please try one of the following:

- The iPhone battery might need to be recharged.
- If that doesn't work, disconnect other USB devices from your computer and connect the iPhone to a different USB 2.0 port on your computer.
- If that doesn't work, turn the iPhone off and turn it on again. Press and hold the Sleep/Wake button on the top of the iPhone for a few seconds until a red slider appears, and then slide the slider. Then press and hold the Sleep/Wake button until the Apple logo appears.
- If that doesn't work, restart your computer and reconnect the iPhone to your computer.
- If that doesn't work, download and install (or reinstall) the latest version of iTunes from www.apple.com/itunes.

Creating Log Files

IRecovery Stick has three options for logging support built right in:

- The **Plug-in Log** option creates a text file log of the recovery based on the plug-in activity.
- The **Serial Log** option logs all traffic across the communication port.
- The **GUI Log** option logs all events that happened in the iRecovery Stick interface during one program session.

Logs contain useful information for resolving issues and adding support for new models.

The GUI Log is created automatically and rewritten each time when iRecovery Stick is restarted. The Plug-in Log and the Serial Log are optional. The best practice is to leave these logging options turned off unless you encounter a problem. Then enable both logging options and duplicate the problem. These logs may be needed if you call tech support to assist you.

To enable the Plug-in Log and the Serial Log creating:

1. Click **Tools** > **Options**.
2. Check **Serial Logs**, **Plugin Logs**, or both.
3. Click **Save**.

NOTE: All logs are created in the user folder (by default, **C:\Documents and Settings\{user name}\logs**). The Plug-in Log and the Serial Log are overwritten when a new recovery process is performed using the same plug-in.

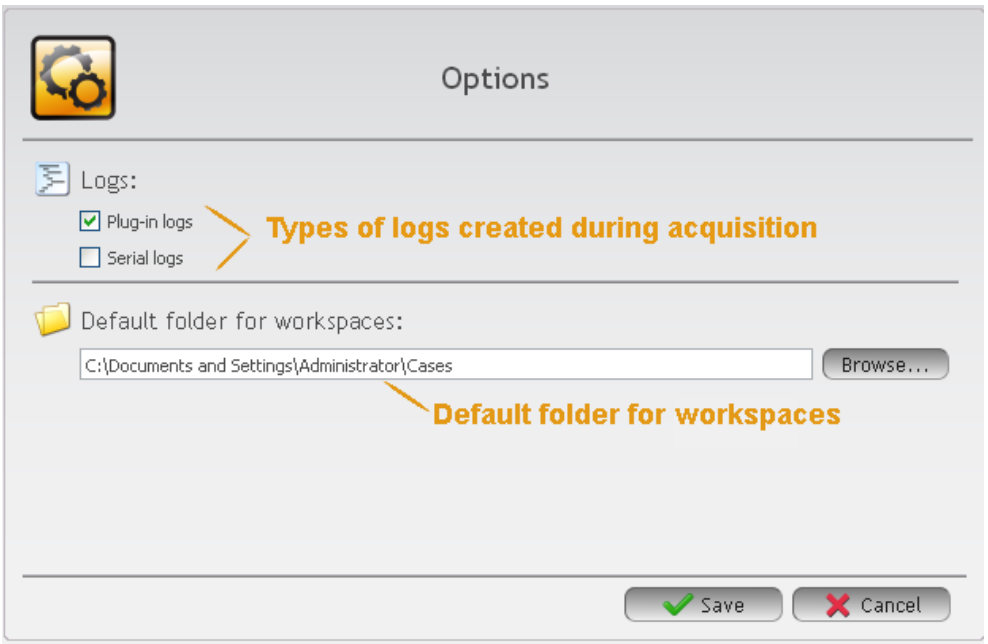
iRecovery Stick Options

To define iRecovery Stick options, select **Tools-Options**.

iRecovery Stick options are the following:

- **Logs:** You can define what logs will be created during the recovery process. The **Plug-in logs** option creates a text file log of the recovery process based on the plug-in activity and the **Serial logs** option logs all traffic across the communication port. If you have any problems with iRecovery Stick, send the logs to Paraben.

- **Default Workspace Folder**: When recovery process starts, a new workspace is automatically created in the default workspace folder. When you close such a workspace, you're proposed to save it under other name. If you don't want to save the workspace, click **No** and the workspace will be deleted. Make sure that there is enough space on the disk, on which the default workspace folder is stored.



Additional Information and Training

Paraben Corporation offers training classes and certifications for professionals seeking to solidify their knowledge of handheld device forensics. Coursework trains students on PDAs, hybrid devices, SIM cards, and GPS devices and tests that knowledge with practical examinations using multiple tools. A Paraben Certified Mobile Examiner (PCME) is prepared for whatever the world of handheld forensics throws at them.

For more information on these training classes or other Paraben forensic tools, please visit: www.paraben-forensics.com.